

We compared smoking as reported by the mother in the PRAMS survey with smoking as indicated on the corresponding birth certificate. The few records where smoking status was unknown were omitted from the analysis. We looked at overall smoking rates from the two sources, by age and racial/ethnic categories. Weighted percentages were used to account for the survey sampling design and coverage. We also looked at the percentage of agreement on smoking status between the birth certificates and corresponding PRAMS surveys. Data from the 2002-2004 PRAMS surveys were combined to achieve larger numbers for the comparisons, resulting in approximately 4,600 live births for this study.

Results

Table 1 shows the overall smoking rates from the birth certificate data and from the corresponding PRAMS data, broken out by age and racial/ethnic categories.

The smoking estimates from these two sources of data are very similar. In all but one of the rows of Table 1, the estimates for PRAMS are higher than the estimates from the birth certificates. The patterns by age and race are the same for both sources of data, with smoking rates declining with mother's

Table 1: Percentages Who Smoked During Pregnancy from Birth Certificate and Corresponding PRAMS Data, by Age and Race/Ethnicity of the Mother, 2002-2004

	Birth Certificate	PRAMS
Total	12.4	13.3
Age of Mother		
Less than 18 years	19.2	22.1
18-34 years	12.5	13.2
35+ years	9.6	10.8
Race/Ethnicity		
White, non-Hispanic	15.0	16.6
African American, non-Hispanic	12.5	11.2
Other, non-Hispanic	6.6	7.9
Hispanic	2.5	3.1

Note: Records with unknown smoking or demographic information are excluded. Percentages are weighted to account for survey sampling design and coverage.

age; white, non-Hispanic mothers having the highest rate of smoking; and Hispanic mothers having by far the lowest rate.

Table 2 shows the pattern of agreement between the birth certificates and PRAMS surveys, among the 4,515 live births where smoking status was known on both the birth certificate and the matching PRAMS survey. For 4,248 (or 94%) of the 4,515 live births, there was agreement on smoking status between the birth certificate and the PRAMS survey. For 101 records (2.2%), the birth certificate indicated prenatal smoking and the matching PRAMS survey did not. For 166 records (3.7%), the PRAMS survey indicated prenatal smoking and the birth certificate did not. Note that the overall percentages of mothers who smoked calculated from this table of raw numbers will not match the weighted (and more representative) percentages in Table 1.

Table 2: Agreement/Disagreement Between Smoking as Reported on the Birth Certificate and its Matching PRAMS Survey, 2002-2004

	Birth Certificate: Yes	Birth Certificate: No	Total
PRAMS: Yes	536	166	702
PRAMS: No	101	3,712	3,813
Total	637	3,878	4,515

Table 3 shows the overall percentage agreement between the birth certificates and the matching PRAMS surveys, broken out by the same demographic categories as in Table 1. It can be seen that the agreement is highest among older mothers and Hispanic mothers.

Discussion

The weighted results from the PRAMS sample are designed to be representative of all live births in North Carolina. The percentage of the live births in the 2002-2004 PRAMS sample where the birth certificate indicated prenatal smoking was 12.4 (from Table 1). The actual percentage of all 355,372 live birth certificates for 2002-2004 where prenatal smoking was indicated was 12.8.